

CLAIMS

I claim:

1. A composition for use in delivering a drug into the body of a mammal, wherein the composition
5 comprises silicone elastomer, an adjuvant polymer, and the drug.
2. The composition of claim 1 wherein the adjuvant polymer is selected from the group consisting of polyethylene glycol or copolymer thereof, polymeric
10 surfactant, polysaccharide, polyurethane, and polyethyleneimines. hyaluronic acid and its chemical derivatives, chemically modified cellulose, polyamyloses, polydextroses, dextrans, heparins, heparans, chondroitin sulfate, dermatan sulfate, poly(N-
15 isopropylacrylamide), polyurethanes, polyacrylates, polyethyleneimines, poly-N-vinylpyrrolidone, polyvinylalcohol, or polyvinylacetate.
3. The composition of claim 2 wherein the polyethylene glycol has a molecular weight of 2-500kDa
- 20 4. The composition of claim 1 wherein the drug is selected from the group consisting of antiproliferative, anti-inflammatory, antibiotic, antiplatelet, anticoagulant, antimicrobial, anti-arrhythmic, antisense, and genetic material.
- 25 5. The composition of claim 1 wherein the drug is hydrophilic.
6. The composition of claim 5 wherein the hydrophilic drug is selected from the group consisting of Tranilast, DENSPM, rapamycin and its derivatives
30 thereof.
7. The composition of claim 1 wherein the drug is hydrophobic.

8. The composition of claim 5 wherein the hydrophobic drug is selected from the group consisting of paclitaxel, ciproflaxacin and amiodarone.

9. An implantable medical device comprising a
5 composition that comprises a first polymer of silicone elastomer, an adjuvant polymer, and a drug.

10. The device of claim 9, which is selected from the group consisting of a catheter, a wire guide, a cannula, a stent, a vascular or other graft or sheath,
10 PICC lines, arterial-venous shunt, a cardiac pacemaker lead or lead tip, a cardiac defibrillator lead or lead tip, a heart valve, a suture, or a needle, an angioplasty device or portion thereof, a pacemaker or portion thereof, and an orthopedic device, appliance,
15 implant or replacement.

11. The device of claim 9 comprising a base material comprising a surface, and a first layer applied to at least a portion of the surface comprising said composition.

20 12. The device of claim 9, wherein the base material comprises stainless steel, tantalum, titanium, nitinol, gold, platinum, inconel, iridium, silver, tungsten, or another biocompatible metal, or alloys of any of these; carbon or carbon fiber; cellulose acetate,
25 cellulose nitrate, silicone, polyethylene teraphthalate, polyurethane, polyamide, polyester, polyorthoester, polyanhydride, polyether sulfone, polycarbonate, polypropylene, polyethylene, polytetrafluoroethylene, or mixtures or copolymers of these, polylactic acid,
30 polyglycolic acid or copolymers thereof, a polyanhydride, polycaprolactone, polyhydroxy-butyrates valerate, or mixtures or copolymers of these.

13. The device of claim 9 wherein the adjuvant polymer is selected from the group consisting of polyethylene glycol, polyethylene glycol containing block copolymers, polymeric surfactant, polysaccharide, polyurethane, and polyethyleneimines.

14. The device of claim 13 wherein the polyethylene glycol has a molecular weight of 2-500kDa.

15. The device of claim 9 wherein the drug is selected from the group consisting of antiproliferative, anti-inflammatory, antibiotic, antiplatelet, anticoagulant, antimicrobial, anti-arrhythmic, antisense, and genetic material.

16. The device of claim 9 wherein the drug is hydrophilic.

17. The device of claim 16 wherein the hydrophilic drug is selected from the group consisting of Tranilast, DENSPM rapamycin and its derivatives thereof.

18. The device of claim 9 wherein the drug is hydrophobic.

19. The device of claim 18 wherein the hydrophobic drug is selected from the group consisting of paclitaxel, ciproflaxacin and amiodarone.

20. The device of claim 9 wherein the coating layer is further coated with a top layer comprising silicone elastomer.

21. The device of claim 20 wherein the top layer of silicone elastomer further comprises polyethylene glycol.